

REMARKS

Claim 1 has been amended to clarify what is involved in the alignment of data signals in the context of the present invention. Support for the amendment can be found throughout the Patent specification especially between pages 15 and 33 and, by way of example, at page 15 lines 13 to 22 and, for example, at page 23 lines 2 to 9.

Claim 12 has been amended so that the phrase "one or more" is replaced by "at least one" in order to overcome the objection made in paragraph 1 of the Examiner's report.

With regard to the claim rejections under 35 USC §102, the applicants respectfully disagree with the Examiner's interpretation of US 6,671,271 (Takemura). The applicants agree that Takemura discloses the overall concept of conventional protection switching wherein the apparatus select between a main and standby path depending on the quality of the signal received on the respective paths. In the Takemura disclosure, this path selection process is formed by the ASICs 102 and 104. However, Takemura does not disclose that the data signals on the respective paths are aligned so that the selector-mechanism can select between respective data elements and from the same frame. It must be emphasized that the fact that Takemura buffers the transmission paths using buffer 178 does not in itself achieve this. Takemura discloses conventional path switching in which the respective qualities of the two data signals are compared without taking into account whether or not one data signal has been delayed with respect to the other. There is no mechanism in the Takemura apparatus that ensures that the quality comparison is made between corresponding data from each path. This is achieved in the apparatus of Claim 1 by making the selection between respective data elements that have the same frame identifier. It is noted that at column 13 lines 57 to 63, Takemura does disclose the alignment of STM traffic 158 with STM traffic 152. However, as stipulated at line 62 of column 13, this is frame alignment and so involves standard pointer processing

operations in order to align the respective signals to the local timing of the apparatus. This is quite different from the alignment required by Claim 1.

Hence, Takemura does not disclose the following features:

The following features of Claim 1:

- a) Each data element is associated with an identifier that identifies to which data frame it belongs; and
- b) The apparatus is arranged to align the respective data signals received on said transmission path by causing said selector mechanism to select between transmission paths by selecting between a respective data element from each path wherein the associated identifiers of said respective data element indicate that said respective data elements belong to the same data frame.

The Examiner has also pointed out that Takemura discloses the use of routing tags and path, line and signal overhead bytes. All of these are conventional and none of them serve as a frame identifier nor may they be said to comprise of virtual concatenation overhead bits.

With regard to obviousness, the Takemura reference does not contemplate the problem being solved by the present invention, namely that data signals can be delayed by different lengths of the main and standby transmission paths. Nor does Takemura provide any solution to this problem. The Takemura apparatus cannot ensure that it selects between corresponding data elements from two transmission paths, since there is no means for identifying to which frame each data element belongs, or that selection between transmission paths is performed by selecting between respective data elements having the same frame identifier. It is respectfully submitted therefore that Claim 1 is not obvious in the light of Takemura.

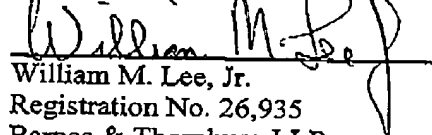
Similarly, it is respectfully submitted that Claim 19, 20 and 21 are both novel and non-obvious when compared to Takemura.

It is respectfully submitted that the remaining claims, being dependent on one or other of the independent claims, are also novel and non-obvious.

Given the above, allowance of the application is solicited.

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